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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE THREE HUNDRED AND FORTY-SEVENTH MEETING

Held at Headquarters, New York,
on Tuesday, 12 June 1990, at 3 p.m.

Chairman: Mr. JANKOWITSCH (Austria)

- Report of the Legal Sub-Committee on the work of its twenty-ninth session (continued)
- Statement by the Chairman
- Spin-off benefits of space technology: review of current status
- Organization of work

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The meeting was called to order at 3.20 p.m.

REPORT OF THE LEGAL SUB-COMMITTEE ON THE WORK OF ITS TWENTY-NINTH SESSION (A/AC.105/457) (continued)

Mr. RASHKOW (United States of America): I appreciate the opportunity to address the Committee under item 6, concerning the report of the Legal Sub-Committee.

Allow me to turn first to the Sub-Committee's work on the use of nuclear power sources in outer space. The United States places the highest priority on safe use of nuclear power sources in outer space since we are a country with a large population and a vast land mass, which makes us vulnerable in the event of unplanned re-entries of such power sources. The enormous research and development conducted by the United States in this area, which we have shared with other Member States, reflects this commitment.

The United States has from the outset fully supported the Sub-Committee's efforts to arrive at a consensus on principles which are balanced, place a high priority on safety and are realistic from a technical standpoint. The last session of the Sub-Committee witnessed substantial progress in the development of these important draft principles with the recording of consensus in the Sub-Committee on draft principle 3, "Guidelines and criteria for safe use". The United States delegation welcomed the flexibility provided in the new draft through its use of general concepts and practices. As we noted during the deliberations of the Sub-Committee, this approach has the advantage of avoiding the pitfalls of detailed or prescriptive standards, as had been proposed earlier in the consultations of the Sub-Committee.

This important draft principle addresses general goals for radiation protection and nuclear safety, for nuclear reactors and for radioisotopic generators. It takes into account concepts utilized in terrestrial reactors such

(Mr. Rashkow, United States)

as radiation limits suggested by the International Commission of Radiological Protection and the general concept of defence in depth. Defence in depth for nuclear power sources considers design features as well as mission operations which obviate or minimize the consequences of system malfunction and which do not automatically require redundant safety systems for each individual component.

This new draft principle brings to six the number of principles on which consensus has been recorded. Once consensus has been reached on the remaining draft principles the Sub-Committee will be in a position to review a complete set of draft principles to consider whether any adjustments are necessary or desirable to reflect the interrelationships between the principles and to assure that the overall effect of the principles reflects an appropriate balance and achieves our shared intended objectives.

The Sub-Committee must also address outstanding issues such as the need to define "launching State" for the purposes of the principles as well as the use of the terms "should" or "shall". In regard to this last issue the Sub-Committee must bear in mind that any principles that the Committee produces will of necessity be of a recommendatory character and not legally binding.

Finally, as delegations are aware, my delegation has raised several questions during the informal consultations that apply to a complete set of principles, and which also must be addressed.

I will now turn to the Sub-Committee's new item entitled "Consideration of the legal aspects related to the application of the principle that the exploration and utilization of outer space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries". As we are all aware, this new item of business reflects a carefully balanced formulation which lays the groundwork for a discussion over the next few years on the application of article I of the 1967 outer space Treaty. It is clear

(Mr. Rashkow, United States)

that the new item provides for an exchange of views on this important matter; it does not, however, provide a mandate for the negotiation of a new international legal framework.

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(Mr. Rashkow, United States)

The United States welcomes the understanding reached in the Sub-Committee last year and later endorsed by the General Assembly at its forty-fourth session regarding the timetable and programme of work for the new agenda item. The United States looks forward to progress on the new item in accordance with that understanding. We trust that other delegations share our view, so that serious work can begin on the substantive areas that need to be discussed under this item in the new Working Group which is to commence consideration of this matter at the next session of the Sub-Committee. In this regard, we reiterate our support for the Sub-Committee's recommendation in paragraph 54 of its report concerning the need for Member States that have not already done so to submit responses to the requests from the Secretary-General for information on their national legal frameworks, if any, relating to the application of the principle contained in Article I of the 1967 outer space Treaty and for information regarding international agreements that Member States have entered into that are relevant to that principle. Certainly a fuller response by Member States to the Secretary-General's requests for such information can emphasize the sense of importance which most delegations have asserted during our discussion that they attach to this item.

I shall now turn to the remaining item on the Sub-Committee's agenda, namely, the definition and delimitation of outer space and the legal character of the geostationary orbit.

As we have said on numerous occasions, the absence of a definition or delimitation of outer space has not created any practical problems to the dramatic progress that has been made over the last 30 years in the peaceful exploration and use of outer space. The continued absence of such a definition or delimitation

(Mr. Rashkow, United States)

does not, to our knowledge, pose any obstacles to further progress for the foreseeable future. Quite to the contrary, as we have consistently maintained, premature attempts to establish such a definition or delimitation may, in fact, complicate, if not impede, further progress in the peaceful exploration and use of outer space.

As we and other delegations have stated on numerous occasions, further consideration of this matter will not be productive. We would therefore urge the Committee to find some way to drop this matter from the agenda of the Legal Sub-Committee, or at least to put it to the side, so that the time of the Sub-Committee could be spent on matters that both address more concrete problems and are more likely to produce practical results.

The position of the United States on the issue of the geostationary orbit is well known and is reflected, along with that of other delegations, in paragraph 13 of the report of the Chairman of the Working Group on this agenda item. The geostationary orbit is an integral part of outer space. It is not subject to appropriation by claims of sovereignty, by means of use or occupation, or by any other means. All States enjoy equitable access to its utilization. Moreover, as we have said on numerous occasions, questions relating to the use of the geostationary orbit are being addressed effectively in the International Telecommunication Union (ITU). It is the ITU which is responsible for the rational, efficient, and equitable use of the orbit. It does so on the basis of treaty arrangements.

Any discussion in the Legal Sub-Committee on the geostationary orbit, in the view of my delegation, should not involve the development of a new legal régime. The development of such a régime not only is unnecessary for the resolution of this matter, but clearly goes beyond the mandate of the Sub-Committee.

(Mr. Rashkow, United States)

My delegation and others have in past sessions expressed grave concern over the constant underutilization of conference resources by this Sub-Committee, and we have offered specific proposals on how this body can improve its method of work and organization, such as those contained in document A/AC.105/C.2/L.174. My delegation has been disappointed by the lack of interest on the part of some to come to grips with this issue. As we have already noted, we feel the current session of the Committee could provide a unique opportunity to remedy some long-standing problems that have obstructed progress in this matter, such as the venue and the duration of the Legal Sub-Committee. We note that these items received unprecedented attention by the forty-fourth session of the General Assembly. A very salutary and balanced recommendation emerged from the Special Political Committee's working group on outer space dealing with the conservation of scarce conference services resources.

A separate injunction we need to address at this session deals with the Sub-Committee's venue and is contained in resolution 44/201 B developed in the Fifth Committee of the General Assembly. We are prepared to work with all delegations at this session to provide a constructive response to the concern raised by the General Assembly in these areas.

(Mr. Rashkow, United States)

In this respect, we wish to state clearly our view that it is necessary, as the Advisory Committee on Administrative and Budgetary Questions has urged, to cease the practice of holding alternate sessions of the Legal Sub-Committee at Geneva, since there are no discernible benefits to justify either the additional costs incurred by the Organization or the continued exception to the General Assembly principle that United Nations bodies should meet at their Headquarters.

With respect to the organization of the Sub-Committee and its duration, we now have some reason to be optimistic, based on the decision taken at the forty-fourth session of the General Assembly, which indicated a willingness on the part of Member States to begin a dialogue concerning appropriate arrangements for future sessions of the Legal Sub-Committee, as reflected in the letter of 16 November 1989 from the Chairman of the Special Political Committee to the Chairman of the Legal Sub-Committee regarding arrangements with Conference Services of the Secretariat in order to improve the efficiency of the utilization of such resources.

The response from the Chairman of the Sub-Committee of 31 January 1990, sent to Under-Secretary-General Wyzner, and annexed to the report of the Sub-Committee, contains some excellent ideas for streamlining the organization of the work of the Sub-Committee. We wish once again to express our congratulations to the former Chairman of the Sub-Committee for those ideas and also to the Secretariat for proposals regarding the schedule of work for the last session of the Sub-Committee, which are annexed to its report and which will help streamline the work of the Sub-Committee.

Those proposals are a modest step forward. However, as the Chairman of the Sub-Committee has pointed out, more needs to be done. In this respect, we would pose a question for the representative of the Secretariat regarding the best figures available for the utilization of conference services at the last session of the Legal Sub-Committee. We have heard reference to an 84 per cent figure, but

(Mr. Rashkow, United States)

this seems to us to be extremely generous, since we are aware that at least eight meetings were not held due to informal consultations, and two other meetings were cancelled outright. Thus, even excluding late starts and early endings of meetings, which also need to be factored into any final figure, it is clear that conference services were not utilized for 10 of the 26 meetings originally budgeted. This seems considerably less than the 84 per cent figure which we have heard.

Finally, I should like to conclude by reiterating our willingness and readiness to work with all delegations interested in making the Committee and its two Sub-Committees function as effectively and efficiently as possible. The Committee, as the only standing Committee of the General Assembly having an exclusive mandate for promoting international co-operation in the use and exploration of outer space, occupies a unique position within the United Nations.

Mrs. OUEDRAOGO (Burkina Faso) (interpretation from French): Mr. Chairman, I should like to thank you for having given me the opportunity to make a few comments on the questions under consideration. Thanks to the advanced stage of research, outer space is now becoming a kind of suburb of our planet. As a result, there is an absolute need to make use of it for peaceful purposes. Here, while we welcome the progress made by the Scientific and Technical Sub-Committee, in considering the question submitted to it, my delegation, is concerned with the four following points, inter alia.

First, space debris, like nuclear power sources in space, cause problems for which a correct solution must be quickly found.

Secondly, the haphazard use and exploration of space continue to grow. Closer technical co-operation aimed at meeting the needs of all should be established among States, to avoid the saturation and pollution of outer space.

(Mrs. Ouedraogo, Burkina Faso)

Thirdly, the gap continues to grow between the developed and developing countries in the area of its exploration and use of outer space. As a result, outer space is becoming the property of the great Powers.

Fourthly, as we know, the geostationary orbit is a limited natural resource and the risk of its saturation, as I mentioned earlier, is real; hence a legal régime is necessary.

Given these concerns, my delegation believes that the United Nations could make a contribution in various ways. The first would be to pursue its activities aimed at reducing the gap among States by establishing and strengthening international co-operation in the area of outer space. Thanks to the outstanding technique of remote sensing, one of the practical applications would be to assist the development of desert regions and to update the potential of their soil.

Moreover, my country, Burkina Faso, has set up at Ouagadougou a remote sensing regional centre, and its activities could be further strengthened.

Now that the benefits derived from the use of outer space are obvious, the second contribution of the United Nations would be to make it clear to everyone that its use must be rational, economical, effective, and carried out for the benefit and in the interests of all States, in particular the developing States. The ways and means should be defined very specifically. This implies the rejection of magical formulas and the adoption of positive action in solidarity.

(Mrs. Ouedraogo, Burkina Faso)

Here, my delegation has followed with keen interest the statement of the Indian delegation and its presentation demonstrating how remote sensing has become a tool in the service of development. That data in the hands of the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) could serve the developing countries.

Before concluding this series of brief comments my delegation wishes to welcome the declaration of 1992 as International Space Year and it hopes that particular emphasis will be put on consciousness-raising, training and the broad dissemination of data and international co-operation, particularly between North and South. We also suggest that the International Year, which coincides with the International Year for the Environment, should provide an opportunity to make a rational and useful link between the three notions of the peaceful use of outer space, the environment and development.

As for the delimitation of outer space, my delegation believes that it is necessary to define a limit between airspace and outer space. In particular, that would enable us to determine the applicable scope of treaties that deal with outer space.

Lastly, I should like, on the one hand, to express my delegation's gratitude to those States that have made study and training scholarships available to the developing countries and, on the other hand, to voice a request that the United Nations organize in the Western African sub-region a seminar on remote sensing and its applications to promote and lend new impetus to the activities of our regional Remote Sensing Centre.

Mr. PERRI (Brazil)(interpretation from French): I shall be very brief. Indeed, I wish merely to make one small point concerning my statement this morning. I think it is important at this juncture to state that the task of

(Mr. Perri, Brazil)

discussing international co-operation entrusted to the Working Group is very clear to the Brazilian delegation. It cannot be regarded as being in any way limited or restricted.

On earlier occasions involving the discussion of other matters the Working Groups established by the Committee were always given a very broad mandate that expired only when delegations determined that the time had come to deem the work undertaken had been completed. Therefore, the work now under way, which has a legal basis, must be carried out without prejudice. No distinction should be made between a developed and a developing country when we are dealing with legal concepts. In order for the law to be just it must clearly take into consideration the asymmetries that exist among countries and that characterize international society.

It was in light of that line of reasoning that I mentioned in my statement this morning the question of differences among developed and developing countries. We must not be Manichean in our attitudes here; we must be absolutely objective, and we must realize that the legal results we are attempting to obtain through our discussions must be general in wording if they are to be just in content and that they must be universally applicable. We must undertake to perform work that will do us the honour of demonstrating that we have, for the first time, laid down just and general conditions for providing a legal basis for international co-operation in outer space.

Mr. BOYER (France)(interpretation from French): I listened with the keenest interest to the statement of the representative of the United States concerning time and method of work and the site for meetings of the Legal Sub-Committee.

The representative of the United States referred to General Assembly resolution 44/201 B and drew the conclusion that it contained a recommendation that

(Mr. Boyer, France)

we hold all our sessions in New York. With the Committee's permission, I would like to take up a moment of our time and quote paragraph 2 of section III of the resolution, which reads as follows:

"Requests the Human Rights Committee and the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space to take fully into account the recommendations contained in paragraphs 23.5, 23.6, 2A.6 and 2A.7 of the report of the Advisory Committee on Administrative and Budgetary Questions, including the need for optimum use of resources, as well as the provisions of General Assembly resolution 40/243 of 18 December 1985, when deciding on the venue of their future sessions".

Paragraph 4 (h) of section I of General Assembly resolution 40/243 reads:

"The sessions of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space shall be held alternately at United Nations Headquarters and the United Nations Office at Geneva."

I consider that a very clear indication; in any case, that the site of meetings should be transferred from Geneva to New York is certainly not obvious.

That being the case, I should like briefly to go over the reasoning on which advocating transfer of the meetings from Geneva to New York is based. First, I well understand the concerns of the United States delegation, since for it the question of cost is, of course, uppermost. I note, however, that no figures are given in support of its statement - indeed, no figures at all have been supplied to us so far.

Secondly, there is the argument advanced by the representative of Japan that the move would be convenient for certain delegations. I do not want to speak for other delegations, but I shall simply say that as far as the French delegation is concerned I can assure you that it is far more convenient to go to Geneva than it is to come to New York.

(Mr. Boyer, France)

As for the advantages we would not have were we to meet at Geneva, I think that that statement could be disputed. I have noted the moderation and courtesy shown by the representatives of Japan and the United States in dealing with this matter, so I shall try to deal with it in the same manner and in a friendly spirit.

(Mr. Boyer, France)

I should merely like to stress that there are advantages that, even if they cannot be evaluated, are obvious. In Geneva, for example, we have the United Nations Office which operates perfectly well and which has an advantage over New York in terms of seniority: it is 25 years older and therefore 25 years more experienced. The only thing is that it must be given the wherewithal to respond at all times to the demand for its use.

I shall defer to the majority of members and refrain from detailing the linguistic arguments, but I hope the Committee will permit the representative of France to bear these in mind even if he is too courteous to expand on them here. I see no valid reason to change the current arrangements, certainly no reason that could be based on a text from the General Assembly: the latest text on this question is dated 18 December 1985 - quite recent - and it could not possibly be any clearer than it is.

With respect to the length of the session and the Sub-Committee's working methods, my delegation's view is very close to that of the delegation of Canada: these important questions should not become apples of discord in this Committee. When things can be improved and when agreement can be reached on arrangements, the French delegation is pleased to join in such agreements. Moreover, we feel that progress can be made on certain specific items; we hope it will, but we wish to impose nothing.

Mr. KHABIROV (Union of Soviet Socialist Republics) (interpretation from Russian): Let me first thank the representative of France for the statement he just made; to a large extent it facilitated my task, since it expressed the substance of most of what I wanted to say. I shall therefore speak only briefly on this question of rotation.

The decision to rotate the Sub-Committee's meetings was a compromise among delegations in favour of holding all sessions of the Legal Sub-Committee in Geneva

(Mr. Khabirov, USSR)

and those in favour of holding them all in New York. As we all know, the question was resolved at the 107th meeting of the Committee on the Peaceful Uses of Outer Space, held on 15 December 1971. In putting forward the proposal that sessions of the Legal Sub-Committee alternate between Geneva and New York, the Chairman stressed that the matter should be "decided now, once and for all" (A/AC.105/PV.107, p. 3). Then, the representative of the United States of America stated his agreement with the Chairman's proposal, saying that his delegation thought it

> "a fair proposal that [the Sub-Committee] should meet in 1972 in Geneva, in 1973 in New York, and so on, rotating the two places". (p. 3)

He agreed too that the

> "question of the venue of the Legal Sub-Committe could ... be solved once and for all". (p. 3).

Of course, life and experience change everything; dynamic processes are under way. But our view remains unchanged on this question. We support the proposal of the representative of France. We acknowledge that for some States it is more convenient, financially and otherwise, to send their delegations to New York only; but for others, it is far more convenient to send delegations to Geneva. The existing rotation is good because it gives preference to none, but takes equally into account the interests of all States members of the Committee.

Let me address the question of the length of the Legal Sub-Committee's sessions. We listened very carefully to the views of the representative of the United States, who favours shortening the Sub-Committee's sessions. He seemingly bases his proposal on the view that the work of the Legal Sub-Committee is not very onerous, that it has nothing in particular to do and that it does not make full use of the conference services available to it.

(Mr. Khabirov, USSR)

In that connection, I would recall the discussion of the title of the new item on the agenda of the Legal Sub-Committee, which took place in 1987 and 1988. During that discussion, a number of proposals were put forward on the need for international legal regulation of outer space activities. Among them was a proposal by the United Kingdom concerning improved co-operation in the event of accidents on manned spacecraft (A/AC.105/C.2/L.159), a proposal by the Soviet Union concerning the legal status of the crews of spacecraft, a proposal by Canada, the Netherlands, France and Sweden (A/AC.105/C.2/L.169), a proposal by Czechoslovakia (A/AC.105/C.2/L.161) and a proposal by the Group of 77 of the developing countries (A/AC.105/C.2/L.162).

(Mr. Khabirov, USSR)

I also recall, Mr. Chairman, that you yourself put forward a number of outstanding ideas in your introductory statement. In particular, you indicated the need to work on such questions as space debris, legal problems linked to the exploration of the Moon and Mars, problems linked to asteroids and so on. Frankly, we have been awaiting those proposals from you for a long time. We are grateful to you for them. Now we certainly have something to think about and therefore to take decisions on.

Interesting ideas concerning the legal regulation of outer space activities were expressed by the representatives of Argentina and Indonesia during the present session. The representative of Argentina, according to a press release, stated that he was in favour of drawing up a legal régime for outer space which would strengthen international co-operation and ensure the preservation of outer space for peaceful purposes. The representative of Indonesia spoke about the value of working out the legal aspects of the commercialization of outer space activity. We therefore note that work in the legal sphere is a virgin field; we still have a great deal to do. Our delegation is convinced that in the last analysis we shall all become aware of that need.

The most important thing is the political will, if it exists, and the desire to act. In this context, we should be talking not about reducing and cutting back on the work of the Legal Sub-Committee by shortening its sessions, but, rather, the opposite.

Ms. TAYLOR (United Kingdom): Since the question of the venue for the Legal Sub-Committee's sessions is now being debated it would be remiss of my delegation not to speak briefly on the subject. Our position is well known. We believe that, because of the circumstances that the United Nations faces today, we

(Ms. Taylor, United Kingdom)

should now end any exception to the Headquarters rule, since we believe that that would be to the Organisation's financial benefit.

My delegation would also recommend that in any record of the state of affairs on this subject we should make it clear that this is a matter which for the moment remains unresolved. We also recommend that the Committee should take the matter up again before the 1992 session of the Legal Sub-Committee.

Mr. FREUDENSCHUSS (Austria): Some delegations have very eloquently commented on the question of the venue for the meetings of the Legal Sub-Committee. Others have equally eloquently put forward different positions. To my mind, yet other delegations believe that we have complied with the recommendation in paragraph 18 of the Legal Sub-Committee's report by taking account of the different views when considering the venue. Since this question is not really an issue for 1991, I think we should leave it at that, having complied with paragraph 18, and proceed to other questions.

The second point raised in this context was the duration of the Legal Sub-Committee's session. Certain guidance is given us by the report, in paragraph 17, where the Legal Sub-Committee recorded agreement that a similar organization of work as agreed upon at its session in Geneva would again serve as the basis for organizing the work for next year.

Based on some contacts and informal consultations on this question, I believe that the way to proceed might be to foresee the same number of meetings as those scheduled in Geneva this year. By the same token, there seems to be a general preparedness to rotate on a yearly basis the items on the Sub-Committee's agenda. Since this year in Geneva we took up nuclear power sources first, we would presumably take up another item first next year, and so on.

(Mr. Freudenschuss, Austria)

In my delegation's opinion, what I have said could be the course the Committee might recommend that the General Assembly follow.

Mr. LOWELL (United States of America): I should like to make a few brief comments and then come directly to the suggestions made by the representative of Austria.

First, the representative of France, and the representative of the Soviet Union even more so, raised questions about some of the points made in our statement. With respect to the figures, the cost savings and so on, there is a special line item that had to be identified in the biennial budget to pay for the transportation of Secretariat officials and so on to Geneva. It is not our intention to engage in a detailed discussion of the budgetary implications, but that is certainly in the official documentation.

However, that is not so much the point. We wanted to make the following point, which we still feel is correct. Here I refer in particular to the comments made by the representative of the Soviet Union, who spoke of our agreement in previous years to rotate the sessions. We did agree, but what has happened - many things have changed, of course, and this is one of them - is that the Advisory Committee on Administrative and Budgetary Questions has taken up the question in the past two years and has recommended that for budgetary reasons the Committee should cease that practice and instead comport with the general rule that the General Assembly has established that subsidiary bodies of the United Nations meet at their established headquarters. Therefore, in our view, the onus should be not to demonstrate that there is some intangible benefit of New York vis-à-vis Geneva but to show why there are such tangible benefits to meeting in Geneva that warrants a continued exemption from the rule. I believe that those are the terms in which the General Assembly has laid it down.

(Mr. Lowell, United States)

Secondly, the representative of the Soviet Union sought to capture in his statement the analysis that the United States had applied to the Legal Sub-Committee by suggesting that we thought it was underemployed and somehow needed more work to do or somehow was not very important. In fact, that is not our position.

(Mr. Lowell, United States)

Our position, when it comes to the working methods of the Legal Sub-Committee, is that it is not doing its job very efficiently, and I think the records of the United Nations bear that out. I think in most systems, when you see inefficiency, you try and deal with it. That is our point. We do not think you deal with it by loading it with a lot of additional work. We do not think efficiency necessarily results - in management theory, at least - from loading additional work requirements on inefficient organs.

Having said that, I come to the suggestions made by the representative of Austria. With respect to the point on organizing the Legal Sub-Committee's work for the next session and informal consultations, we are certainly open to considering that. We want to be flexible and to try and meet the different interests of people half way. After all, that is the only way we can proceed in our work. So we are certainly open to that. We would, however, ask to see something informally - draft language for the report - before coming to a final decision on that approach to this session.

With respect to his first point, however, on Geneva, I was a little confused because there seemed to be two possible conclusions in tension with one another. Since Geneva is not a candidate for meetings of the Legal Sub-Committee next year, we could defer consideration until the next session, when a final recommendation would have to be made. If indeed it is not possible to come to a consensus on Geneva at this session, of course we are open to continuing informal consultations in that regard. However, I would not necessarily agree with the suggestion I thought I heard from the representative of Austria that by having an ichoate discussion for a short period of time we have somehow executed the mandate the General Assembly has given us to think about this question. I do not think that mandate has been fulfilled.

Mr. MIKULKA (Czechoslovakia) (interpretation from French): In his statement, the representative of the United States expressed some doubts about the figure of 84 per cent of the conference-servicing time resources used at the last session of the Legal Sub-Committee. I feel compelled to give an explanation in this regard, because it was I who raised the figure of 84 per cent in my introduction of the report yesterday afternoon.

It will be recalled that I said that at its twenty-ninth session the Sub-Committee paid particular attention to the rational use of conference services in the light of the importance the General Assembly and the Committee on Conferences attached to this problem. I also said that the Sub-Committee and its working groups had striven to hold informal consultations for which conference services were not needed and for that reason to cancel in advance certain of its formal meetings. Perhaps that is where the misunderstanding crept in: obviously there is a difference between the methodology used by the United States delegation, which a priori presumes that the meetings that were cancelled in advance, even those cancelled because of necessary and very productive informal consultations, should be included in the total figure on which we based the calculation of wasted time.

In point of fact, the methodology used by the United Nations is a little different. The meetings that were not used because of the holding of informal consultations planned in advance are not included in the total figure taken as a basis for that calculation.

I should therefore be very grateful if the Secretariat could check this matter once again and give us a final answer in this regard.

Mr. KHABIROV (Union of Soviet Socialist Republics) (interpretation from Russian): A few words on the statement of the United States.

France has already spoken on this question. We should like to say that

(Mr. Khabirov, USSR)

General Assembly resolution 44/201 B, part III, in our view does not unequivocally make a statement on the holding of all the meetings of the Legal Sub-Committee in New York; the General Assembly requests that in consideration of the venue of the Legal Sub-Committee's future meetings account be taken not only of views of the Advisory Committee on Administrative and Budgetary Questions - which spoke in favour of the elimination of the rotation system, as the representative of the United States has said - but also of General Assembly resolution 40/243, in which the rotation system is confirmed.

Thus it should be noted that the Advisory Committee's recommendation has already been considered by the General Assembly, at its 44th session, and was not adopted. That is why the Legal Sub-Committee's session was held in Geneva this year.

Mr. NOREEN (Sweden): My delegation would agree with what the representative of Austria said a while ago: that there is no pressing need at this session to come to an agreement on the question of venue. I have noted a willingness on the part of all delegations to continue consultations on this question with a view to reaching an agreement, hopefully before the 1992 session, as our colleague from the United Kingdom said.

It is clearly the case that the question of venue is in effect linked with the working methods of the Legal Sub-Committee; it can be seen as a coherent part of that question. In that respect, I think that in the meantime, while these consultations are going on, we can usefully extend the mandate given to the Chairman of the Legal Sub-Committee to continue consulting with the Department of Conference Services with a view to improving the efficiency of the Legal Sub-Committee. I think that is something that all delegations would like to achieve. Certainly my delegation shares that ambition.

(Mr. Noreen, Sweden)

When it comes to the question of venue, the Swedish position is that we have not heard any convincing arguments for changing the present system of rotation, but we would be prepared to look at this question afresh when we are confronted with a need to come to a decision prior to the 1992 session.

Mr. JANUS (Netherlands): I should like to raise another matter which is related to the working methods of the Legal Sub-Committee. This year the Legal Sub-Committee met in Geneva at a time when the Sub-Committee on Information also met in New York. The work of both these sub-committees is dealt with in the Special Political Committee. There are many delegations, as far as I know, in which the same people deal with both subjects. I should like to point out that this year the arrangements made by the Secretariat to have these meetings almost completely overlap have created a problem for my delegation. I would hope that the Secretariat, in arranging the dates of the meetings of these two bodies next year, would also take into account the dates of the Special Committee on Peace-keeping Operations, whose work also is taken up in the Special Political Committee during sessions of the General Assembly. I would hope that arrangements could be made so that these meetings could take place at dates that do not overlap.

Ms. TAYLOR (United Kingdom): My delegation will profit from this discussion on the nitty-gritty of the arrangements of our Committee meetings to raise a point on the duration of the session of the Legal Sub-Committee next year, which I think is a matter that cannot be delayed, since we shall have to make the arrangements between now and then. It is my delegation's understanding that, at the previous session of the Legal Sub-Committee, it was agreed that the order of work of that session should serve as a basis for the next session.

My delegation also notes that we managed successfully in 13 working days to complete the work of the Legal Sub-Committee. Therefore, it will be our understanding that the duration of the meetings of the Legal Sub-Committee next year will similarly be 13 working days.

Ms. COURTNEY (Australia): I have listened with interest to the discussion with respect to the question of the venue of the session of the Legal Sub-Committee and also to the discussion with respect to its duration.

On the first question, my Government does have a position which is that it would prefer to see sessions of the Legal Sub-Committee restricted to New York. However, in that respect, we are quite flexible and feel that the most constructive proposal was the one put forward here this afternoon by the representative of Austria, who pointed out that we do not need to take a decision on whether or not we go to Geneva for another session, since our next session will take place in New York in any case next year. Therefore, I would add my voice to those that have supported the proposal that consultations should continue, given that we should all be very flexible on this question. I would certainly be in favour of your conducting such consultations, Mr. Chairman; or they could be led by any appropriate person.

On the question of duration, my delegation took the position at the Legal Sub-Committee that it would prefer to see its work shortened to some degree, unless, of course, the Legal Sub-Committee could arrive at a point where it could justify using the additional time. This, of course, is a question of politic will and none of us is innocent in that respect. I think there is a lot for the Legal Sub-Committee to do, and my delegation would be very happy to see it use all the time available to it. If we cannot come to agreement on the political subjects and if we are just simply to be wasting our time, then, of course, we would then of course, continue to support the position that we should look again at how much time is to be allocated to the Legal Sub-Committee.

The CHAIRMAN: I call on the representative of Bolivia, who wishes to make a statement on behalf of the Group of 77.

Mrs. ASHTON (Bolivia) (interpretation from Spanish): As this is the first time that I have spoken in my capacity as Co-ordinator of the Group of 77 in the Committee on the Peaceful Uses of Outer Space, I should like on behalf of the Group, Sir, to congratulate you on your election as Chairman. I should also like to congratulate the other members of the Bureau. I wish also to reiterate the assurances of co-operation of all the members of the Group of 77 in the successful completion of your work.

I am speaking now on agenda item 6, "Report of the Legal Sub-Committee on the work of its twenty-ninth session". The Group of 77 wishes to reiterate and stress the importance the developing countries attach to the work of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space. The great importance and relevance of this work over almost 30 years have been reflected in the legal instruments prepared by that body that now govern many aspects of space activity. That is why we do not hesitate to say that the Legal Sub-Committee plays an outstanding role in the triad of bodies of the Committee. Hence we are reiterating the great importance the Group of 77 attaches to the goals of the Sub-Committee, as the General Assembly has reiterated year after year.

The Group of 77 considers that the progress made in the elaboration of principles concerning the use of nuclear power sources in outer space leads our delegations to consider the future of this subject with optimism. In particular, we feel that the consensus achieved on principle 3 already indicates the achievement of consensus in the future on the remaining outstanding principles. Here, however, the Group of 77 considers that there are still important questions to be resolved. With regard to the delimitation of outer space, a subject to which we also attach fundamental importance, we feel that with a new approach to this question, as was outlined by the representative of the Soviet Union, we may achieve

(Mrs. Ashton, Bolivia)

positive results at future sessions of the Sub-Committee. It is in this same context that I should like to highlight the special importance the Group of 77 attaches to the subject of the geostationary orbit. Its consideration by the Legal Sub-Committee is both useful and necessary, with the aim of achieving substantive progress in its work.

I should like now to refer to the consideration of the legal aspects related to the application of the principle that the exploration and utilization of outer space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries. The Group of 77 has sponsored this item for a long time and attaches the highest priority to it.

(Mrs. Ashton, Bolivia)

In this regard, I should like to express the deep gratitude of the Group of 77 on the election of Mr. Raimundo Gonzalez, an experienced Chilean diplomat, to the chairmanship of the Working Group set up in accordance with General Assembly resolution 44/46. Mr. Gonzalez has worked tirelessly to ensure that this item be dealt with in the Committee.

The Legal Sub-Committee has before it the beginnings of effective consideration of that item. After the Working Group was set up, the first steps to be taken were identified. These are contained in the compromise proposal which was presented to the members of the Sub-Committee by the delegation of Austria at the 1989 session of the Legal Sub-Committee.

Subject to these first steps being taken, the Group of 77 believes that the Working Group should adopt a broad approach in the study of initiatives that, either individually or as a whole, will be submitted by the members of the Sub-Committee. Some proposals have already been made at this session. Similarly, the Group of 77 urges all delegations to take an active part in the work of the Working Group of the Legal Sub-Committee. It is of the greatest importance that on this item, following successful examples of the work on other subjects in the Sub-Committee, a positive and effective exchange of views should take place between the Scientific and Technical Sub-Committee and the Legal Sub-Committee.

In this context, it is quite clear that there is a relationship and a potential, with regard to complementarity of the Working Group on the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) and the Working Group on this subject.

Allow me also to make some comments on questions regarding the organization of the work of the Sub-Committee. The Group of 77 feels it necessary to stress its

(Mrs. Ashton, Bolivia)

opinion that the effectiveness of the Sub-Committee should be considered from the point of view of its legal aims, closely linked with the need to establish norms applicable to space activities. As a result, both the working time allotted to the Sub-Committee and its working methods should necessarily be commensurate with the importance of the legal items that are debated within it. It is in this regard that the Group of 77 will always be prepared to consider any proposal for organization of work that will complement and expand the substantive consideration of all the items on its agenda.

Thus, we cannot, in the present circumstances where the work-load of the Legal Sub-Committee may be further expanded, consider any proposal to reduce the period of 15 working days that are traditionally allotted to that Sub-Committee. It is no less important to recall that on two occasions in the past the time allotted to the Sub-Committee was reduced, to the detriment of a substantive consideration of the items on its agenda. In the same spirit of flexibility, the Group of 77 is ready to consider proposals on the organization of the work programme of the Sub-Committee.

In noting the proposals to rotate the order of consideration of items, the Group of 77 wishes on this occasion to stress the fact that the consideration of any proposal along these lines should take into account the fact that the rotation of items that is being proposed should not in any way affect the allocation of time to any specific item.

STATEMENT BY THE CHAIRMAN

The CHAIRMAN: Apparently no further delegation wishes to speak on agenda item 6. We have therefore concluded consideration of the item, on the assumption that the information requested by the Secretariat will be brought forward at the appropriate time at a later stage in the work of the Committee.

(The Chairman)

In concluding, with reference to the debate of the last hour or so, I can only say that I feel encouraged by the spirit of compromise that is becoming evident in resolving the procedural methods addressed by many delegations, and I would urge those directly involved and interested to engage, if need be, in further consultations on the basis of the number of proposals we have heard, so that we can come to agreed conclusions when we come to drafting our report to the General Assembly - which, it is to be hoped, will again be possible on the basis of consensus.

Before proceeding to the next agenda item, let me inform members that I have just received information to the effect that the Indian National Satellite (INSAT-1D), India's multi-purpose communication and metereological geostationary satellite, has been successfully launched into geostationary transfer orbit by a Delta rocket from Kennedy Space Centre last night, at midnight. The satellite was built by Ford Aerospace Corporation of the United States, under contract with the Government of India. Transfer orbit operations are now being carried out from the Indian master control facility at Hassan, near Bangalore, India.

Let me offer our congratulations to the delegation of India on this successful launch, which is a good example of international co-operation in outer space.

SPIN-OFF BENEFITS OF SPACE TECHNOLOGY: REVIEW OF CURRENT STATUS

Mr. CHANDRASEKHAR (India): Thank you, Mr. Chairman, for wishing us all success in the INSAT 1D programme, which is very important for multi-purpose communications and metereological applications in our country.

I also thank you for giving our delegation this opportunity to present briefly the status of spin-offs from space activities as realized from our own experience and to address some of the issues relevant to the agenda item on spin-off benefits. This agenda item, from our delegation's viewpoint, is an important issue, even though it is the last but one agenda item.

(Mr. Chandrasekhar, India)

Space activities all round the globe have spearheaded many technological innovations which are not only relevant for direct applications of space technology but also for innumerable spin-off applications in industry and in the larger social context. The various new materials, processes and techniques developed for space could be gainfully applied in several other economic activities and applications in day-to-day life.

The development of systems for space calls for the pooling of knowledge from several scientific and technological disciplines. The novel materials, which are very light in weight, the strong and compact structures, and the equipment which uses very low power and which is amenable for remote operations, are developed especially for meeting the conditions in space. These developments can be innovatively adapted for other uses.

The Indian Space Programme has the basic objective of developing and applying space technology for meeting the immediate needs of India in the areas of communications, television distribution, generation and dissemination of weather information, and the survey and monitoring of natural resources. In pursuing this programme, India has given special attention to diffusing the benefits of technologies and techniques generated into other areas of economic activity. This is pursued through a technology transfer programme from space institutions in India to Indian industries. This programme has been successful in putting into production at Indian industries several equipment items and systems developed by the Indian Space Research Organization.

(Mr. Chandrasekhar, India)

Over the past decade 164 novel technologies relating to products and processes covering a wide spectrum of technological disciplines have been transferred. A significant proportion of them have already been commercialized by those industries and the rest are in the process of being produced. It is significant to note than some 60 per cent of those technologies are serving multifarious spin-off applications, while the remaining are catering to the markets created by space applications, particularly for low-cost ground equipment used in communications, meteorology and remote-sensing-data utilization.

The importance of the developing nations' engaging in some basic technological research-and-development activities for space can be seen in some of the unique innovations that generate spin-off uses. A few examples are useful to illustrate this. With its predominantly agriculture-oriented economy, India's capability to produce castor seeds in abundance is utilized to develop polyols that are based on castor oil. These polyols are used to produce rigid, elastomeric, surface-coating varieties of polyurethane products. They find applications in such products as floats, saddles, furniture and insulations. A range of over 20 different types of sealant and adhesive developed for the space programme are adapted for use in the aircraft and rubber industries. A variety of highly efficient chemical dry powders are derived for applications in extinguishing metal and oil fires. The special polymer chemicals developed for space also find applications for insulation coatings. The light-weight composite and honey-comb structures also find applications in several other industries. The precision optical components and a range of thin film coatings developed for space are transferred to industries for the production of high-quality optical systems. Low-cost portable instruments developed for remote-sensing ground-truth data collection have been serving several research institutions. The indigenously developed spectro-radiometers operating

(Mr. Chandrasekhar, India)

in the visible spectral band cost in the $1,000 to $1,500 range, making them affordable to many universities and educational institutions. There are also other opto-electronics instruments that are adapted for measuring moisture in industrial applications, for example in the tea-processing industry.

Those are only some examples of how spin-off applications from technologies developed for space can be employed. India is aiming to promote co-operation with other countries through technology transfers relating to such beneficial applications. It is also willing to share its experience in the development, use or maintenance of some of the ground systems relevant to space applications. In the context of strengthening and increasing international co-operation in this area our delegation will be pleased to participate in and contribute to the efforts of the Committee.

We feel that there is scope for greater co-operation in further promoting spin-off uses of space technology through information exchange and other measures. In that connection our delegation would like to suggest that the space agencies in different countries contribute to that goal by earmarking and providing even a small portion of their resources to the encouragement of spin-off applications through technology transfers and the exchange of technical information on promotional terms. That will encourage the growth of spin-off applications and further promote international co-operation.

Mr. LOWELL (United States of America): I should like to take advantage of the time we have this afternoon to make just a few brief comments and to ask the Committee's indulgence in keeping the agenda item open until at least early tomorrow morning, since, as I have already mentioned, one of our senior officials from the National Aeronautics and Space Administration of the United States (NASA) will be with us at that time to make a detailed statement on this subject.

(Mr. Lowell, United States)

I would, however, like to make a few general observations at this stage. First, I should like to say that as we enter this new decade and a new century these technologies from outer space are undoubtedly going to play an expanding role in our everyday lives. The extent to which such technologies can be applied to secondary uses - "spin-offs", as we call them - is itself increasingly going to be a measure of the success of national space programmes as well as of international space co-operation.

In the United States we have continued to emphasize the importance of the spin-off applications that technology and research can yield. We have done so in very wide-ranging fields, from medicine, the environment and public transportation to education. I think we are daily experiencing these tangible benefits of the over-all public and private investment of our country in space.

I also wanted to call attention at this stage to a paper we submitted at last year's session on this subject, document A/AC.105/L.182. What we suggested in that paper, in addition to deepening our discussion at these sessions of the Committee, was that we also consider ways to take our consideration of this agenda item a little bit further, in a very modest way. We feel this could be looked at without increasing the budgetary credits needed by the Outer Space Affairs Division, and we wanted to suggest these ideas again. They are quite simple. One is that we could think about the preparation of an annual report by the Division. That annual report would distil and summarize the information received from Member States on activities in national space programmes aimed at fostering spin-offs of space technology and on the secondary applications that peoples are able to identify for such space technologies.

In our opinion that type of effort, although very modest, could be quite useful indeed, because as we think about these things the most important thing is

(Mr. Lowell, United States)

to circulate information and exchange national experiences, and this is perhaps one area in the field of international space co-operation where more could be done, particularly in very tangible applications. I have in mind the interests of developing countries that have embarked on space programmes in recent years, in the first instance and, in the second instance, countries - and here I would include industrial countries - that are also looking for ways to maximize the return on public and private investments in these efforts.

The second idea I wanted to suggest at this stage is also to be found in last year's working paper. It is that we think about the possibility of convening at some future point a seminar within the Space Applications Programme, the normal schedule of seminars held in the course of the year, that would be focused on spin-off benefits. In our opinion this could be something really worth exploring: certainly a lot of interesting information could be exchanged among countries and I think it would serve to give a good emphasis within our efforts and the Division's efforts to the importance of the practical benefits of space exploration.

With those comments, I would not say anything more this afternoon but simply request that the agenda item remain open tomorrow morning so that we could resume the discussion at that time.

ORGANIZATION OF WORK

The CHAIRMAN: I confirm the impression of the representative of the United States that item 8 will remain open tomorrow morning for further consideration and to hear the presentation he just mentioned.

At tomorrow morning's meeting, then, we shall conclude our consideration of agenda item 8 and take up agenda item 9, "Other matters". That will enable us to begin considering item 10 "Report of the Committee to the General Assembly" at the beginning of tomorrow afternoon's meeting. We should reserve sufficient time for consideration of the draft report so we can have time to spare for any consultations that might be necessary.

The meeting rose at 5 p.m.